## Foundations of Economics

Topic 2

## Learning Objectives

- Define the two main branches of economics: micro- and macroeconomics
- Distinguish between fact-based and opinion-based statements/ recommendations
- Describe the framework that economists use to model human behavior


## Economics

## Recall:

- Economics is the Social Science that studies how people make decisions in the face of scarcity and the resulting impact of such decisions on both society as a whole and on the individual therein.
- This implies:
- "Micro-level": The individual within an economy
- "Macro-level": The economy as a whole


## Microeconomics

- Is the branch of economics which studies how individual decisionmakers behave and interact with each other.
- Often focuses on how households and firms behave and interact with each other in markets.
- For example:
- How do households allocate its scarce resources among its various members, taking into account each member's abilities, effort, and desires?
- Who cooks dinner? Who does laundry? Who goes grocery shopping? What is consumed?


## Macroeconomics

- Is the branch of economics which studies the functioning and performance of a society's economy as a whole.
- Often focuses on levels and changes in aggregate measures.
- For example
- How can problems in the housing market spread to the rest of the economy?
- Why are so many countries poor? What policies might help them grow out of poverty?
- What is a trade deficit? How does it affect a country's well-being?


## Positive and Normative Statements

- Positive statement or statement of "fact"
- Aims to describe how the world actually is or actually functions
- Observations on or predictions about outcomes, without judging of their desirability
- For example:

Of all U.S. Presidents, Ronald Reagan was the oldest to ever hold office.

- Normative statement or statement of "opinion"
- Aims to assess the desirability of how the world is or functions
- Statements explicitly or implicitly supported by priorities, goals, and value judgements of the person making the statement
- For example:

Of all U.S. Presidents, Ronald Reagan was the greatest.

## Now you try! Normative or Positive?

- All students should study at least five hours a day.
- The average student drinks five cups of coffee every week.
- If demand goes up, price goes up too.
- Tuitions fees should be limited to $\$ 500$ per semester.
- Economics is a fascinating subject.
- Players in the national football league make, on average, more money than players in the national chess league.
- After World War II the female labor force participation rate increased dramatically.


## Positive and Normative Statements - Ctd.

- Disagreement among economists
- Over a positive statement: because not enough data and evidence has yet been gathered to prove the statement either true or false.
- Over a normative statement: because of different opinions, priorities, or value judgments.


## The Cost-Benefit Principle

## - Cost-Benefit Principle

- An individual should undertake an activity if and only of the additional benefit of doing so is greater than or equal to the additional cost of doing so.
- Axioms
- Rational decision making
- Total benefits
- Total costs
- Total economic surplus


## The Cost-Benefit Principle - Ctd.

- Cost-Benefit Analysis
- Direct comparison of the marginal benefit of the activity to the marginal cost of the activity
- Marginal Benefit
- The change in the value of total benefits as more of an activity is undertaken
- Diminishing returns: the additional value from doing an activity declines as it is consumed more
- Marginal Cost
- The change in the value of total cost as more of an activity is undertaken


## The Cost-Benefit Principle - Ctd.

- An Example

| TV <br> Months | Total <br> Benefit | Total <br> Cost | Marginal <br> Benefit | Marginal <br> Cost | Marginal <br> Surplus | Total <br> Surplus |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 0 | 0 | - | - | - | - |
| 1 | 60 | 20 |  |  |  |  |
| 2 | 105 | 40 |  |  |  |  |
| 3 | 140 | 60 |  |  |  |  |
| 4 | 165 | 80 |  |  |  |  |
| 5 | 180 | 100 |  |  |  |  |
| 6 | 190 | 120 |  |  |  |  |
| 7 | 195 | 140 |  |  |  |  |

Cost-Benefit Analysis


## The Cost-Benefit Principle - Ctd.

- An Example

| TV <br> Months | Total <br> Benefit | Total <br> Cost | Marginal <br> Benefit | Marginal <br> Cost | Marginal <br> Surplus | Total <br> Surplus |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 0 | 0 | 0 | - | - | - | - |
| 1 | 60 | 20 | 60 | 20 | 40 | 40 |
| 2 | 105 | 40 | 45 | 20 | 25 | 65 |
| 3 | 140 | 60 | 35 | 20 | 15 | 80 |
| 4 | 165 | 80 | 25 | 20 | 5 | 85 |
| 5 | 180 | 100 | 15 | 20 | -5 | 80 |
| 6 | 190 | 120 | 10 | 20 | -10 | 70 |
| 7 | 195 | 140 | 5 | 20 | -15 | 55 |

Cost-Benefit Analysis


## The Cost-Benefit Principle - Ctd.

- Cost-Benefit Analysis formalized/ Maximizing Economic Surplus
- Minimize marginal cost
- Maximize marginal benefit
- Maximize the difference between marginal cost and marginal benefit



## The Incentive Principle

- Incentive Principle
- A rational person will consume more, if the marginal benefit of consuming an additional unit increases.
- A rational person will consume less, if the marginal cost of consuming an additional unit increases.
- Thus, as benefits or costs change, the behavior of a rational decision maker will likely change.
- Example:
- The cost for attending college


## Summary

- Microeconomics studies how individual decision-makers behave and interact with each other.
- Macroeconomics studies the functioning and performance of a society's economy as a whole.
- Positive statements aim to describe how the world actually is or actually functions.
- Normative statements aim to assess the desirability of how the world is or functions.
- Cost-Benefit Analysis is the direct comparison of the marginal benefit of the activity to the marginal cost of the activity.

